

### In the Specification

Please amend page 18, line 15-page 19, line 11 as follows:

Q1  
Preferably, an end section 50 of first layer 20 is flared outwardly such that an inner dimension of open channel 18 at end section 50 is substantially equal to a respective inner dimension of open channel 30 26. By outwardly flaring a portion of first layer 20, an inner dimension of open channel 18 may be correspondingly reduced. Such reduction in the internal dimension of open channel 18 correspondingly reduces an inner dimension of first layer 20, which allows a smaller internal volume of open channel 18, thereby reducing sample band spreading in the channel without significant reduction in radiant energy transmission through open channel 18. Furthermore, flared section 50 of first layer 20 enables the reduction of an internal dimension of first layer 20 to less than that of open channel 30 26 without significant radiant energy losses, due to the angle of inflection between open channel 30 26 and flared section 50 of channel 18. Such minimum radiant energy loss is possible so long as the flared portion angle combined with the radiant energy angle of incidence is smaller than a radiant energy acceptance angle  $\theta$ . Such an acceptance angle  $\theta$  may be determined by the

following relationship, where NA is the numerical aperture of channel 18,  $n_f$  is the refractive index of the sample fluid, and  $n_{f1}$  is the refractive index of the first layer.

$$\sin\theta = NA = \sqrt{n_f^2 - n_{f1}^2}$$

a/  
Cont  
Outwardly flared section 50 of first layer 20 is preferably sealingly in intimate contact with a chamfered portion 52 of second layer 22.

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